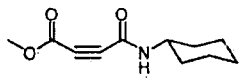
FIGURE 1

Acetylenes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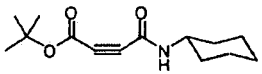
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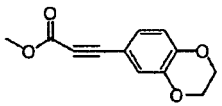
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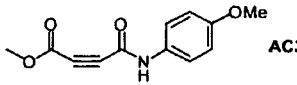
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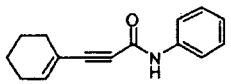
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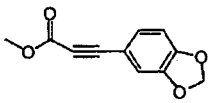
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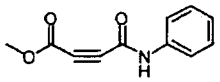
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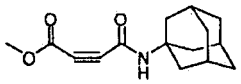
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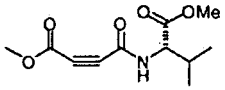
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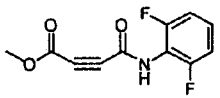
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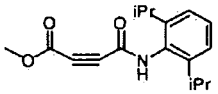
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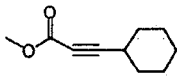
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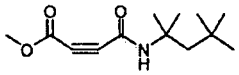
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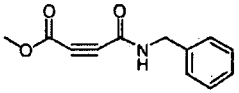
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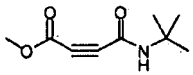
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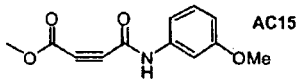
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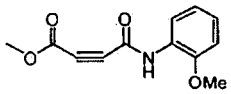
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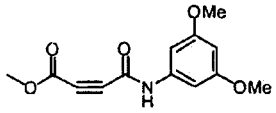
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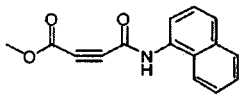
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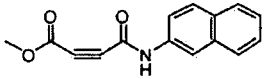
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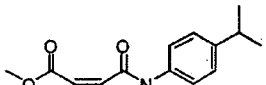
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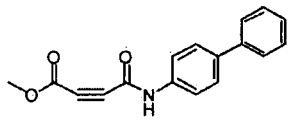
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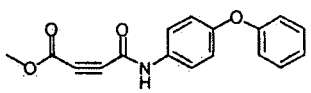
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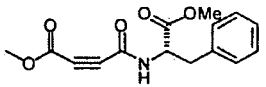
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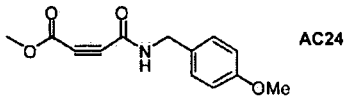
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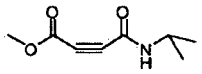
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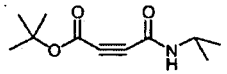
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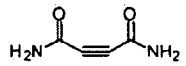

Cellocidin

FIGURE 2

Development of planar scaffold molecules

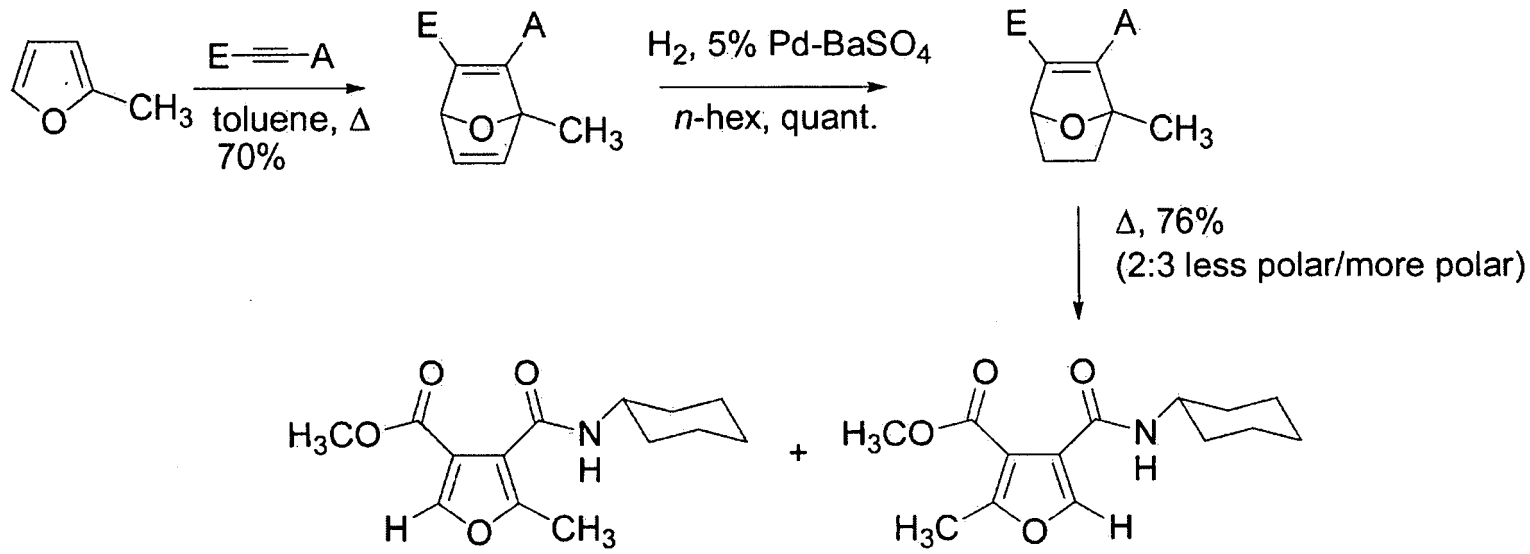


FIGURE 3

Development of planar scaffold molecules, 2

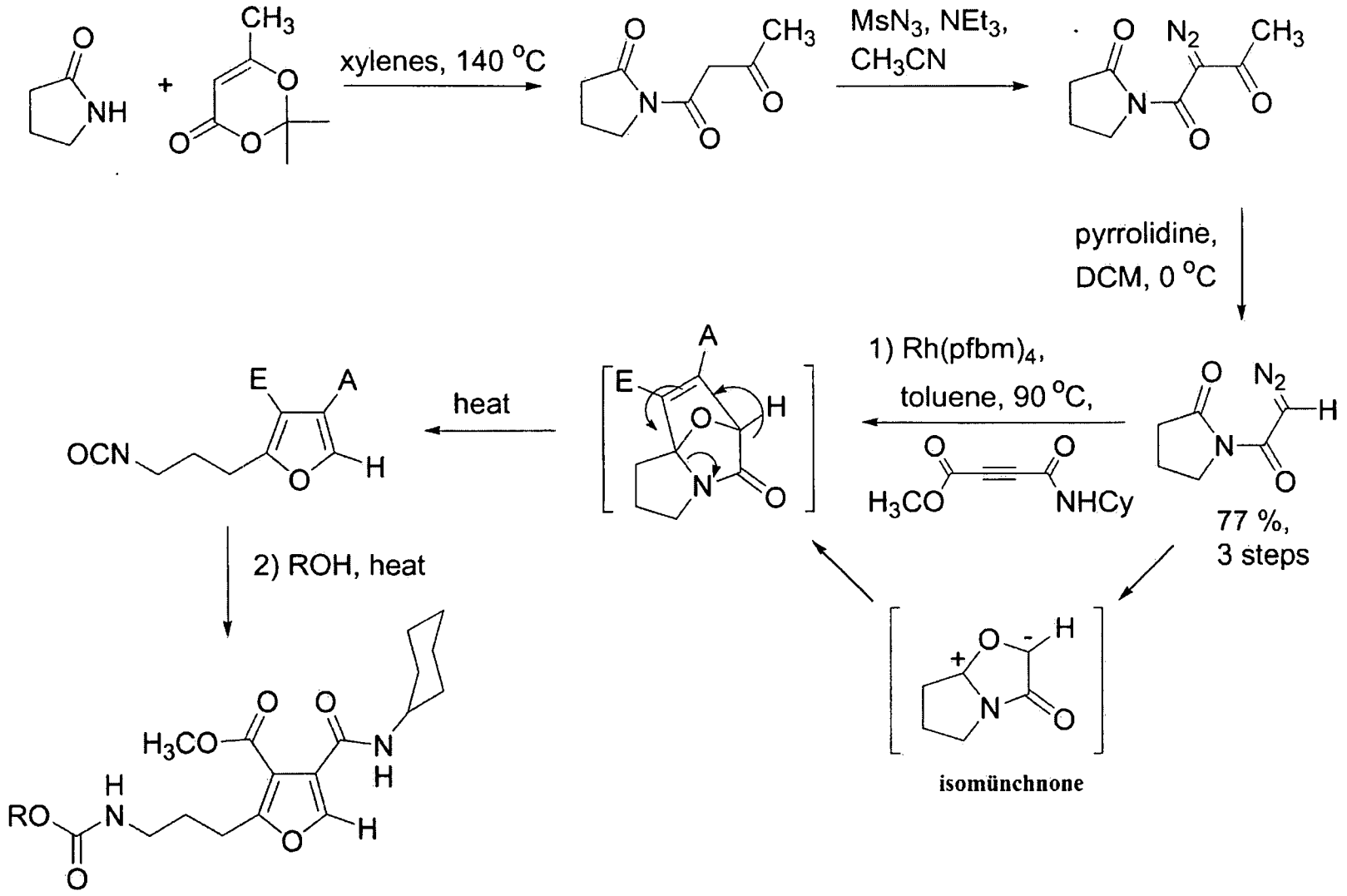


FIGURE 4

Library of Acetylenes

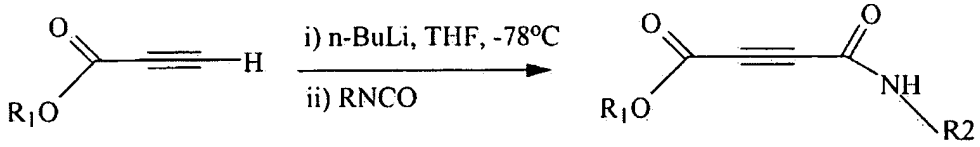
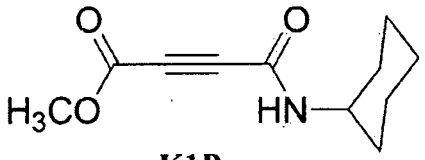


FIGURE 5

1) Investigation of the scaffold left side



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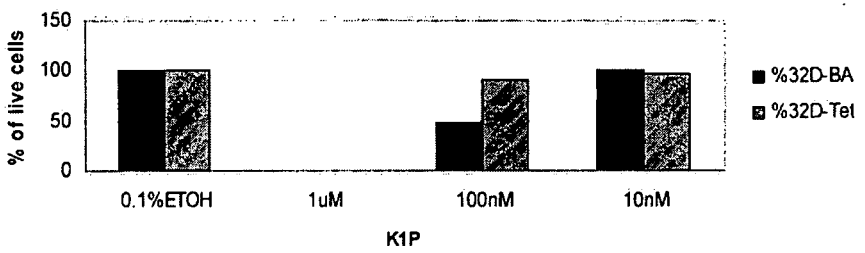
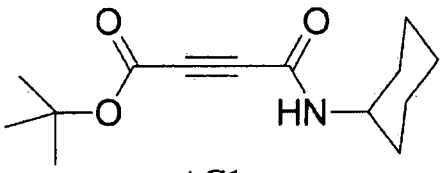
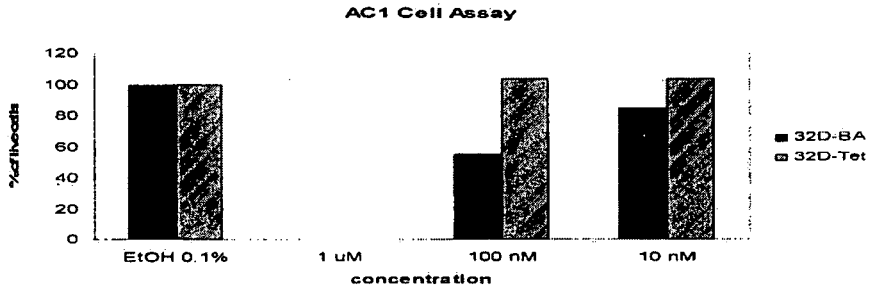




AC1

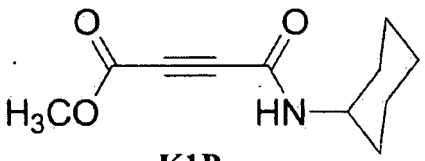


Both molecules exhibited similar activity, despite difference at the ester moiety; optimisation continued with modifications at the amide site

FIGURE 6

Library of Acetylenes

2) Investigation of the scaffold right side



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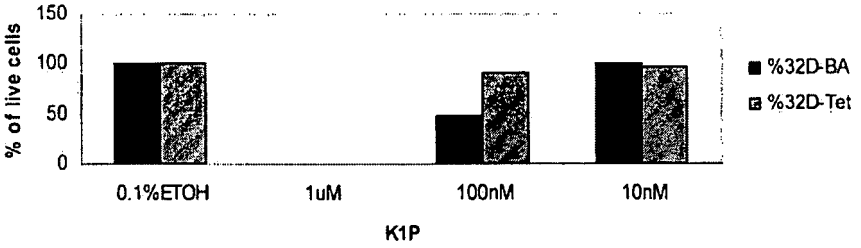

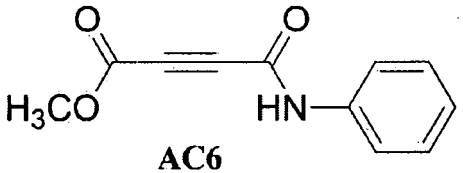

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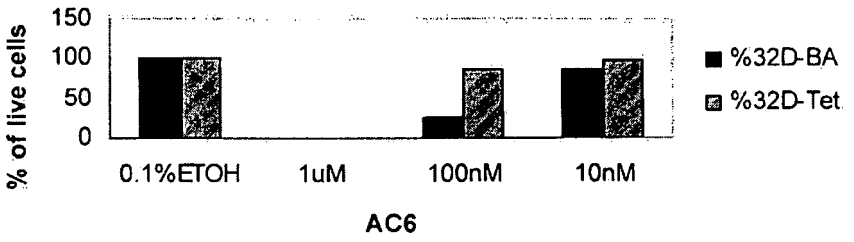
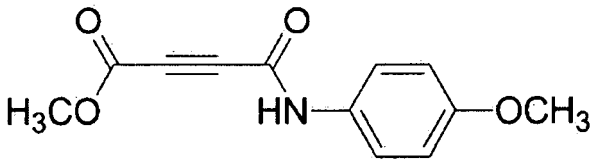
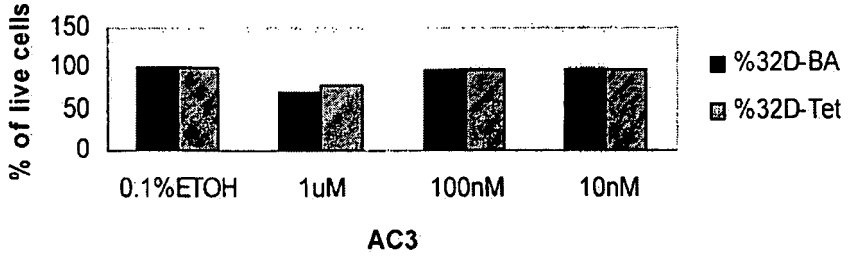




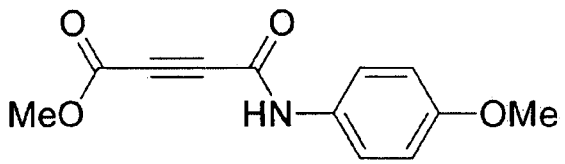
AC3



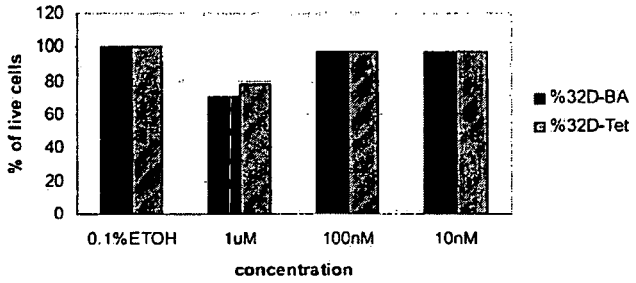
Changing the amide has a strong effect on activity

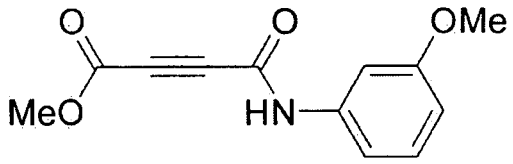
FIGURE 7

Library of Acetylenes

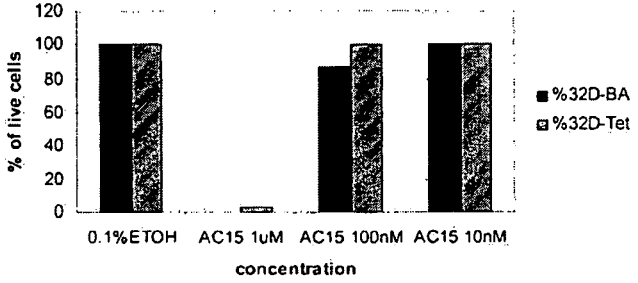


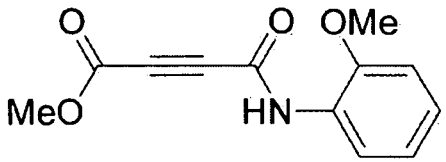
AC3 Cell Assay



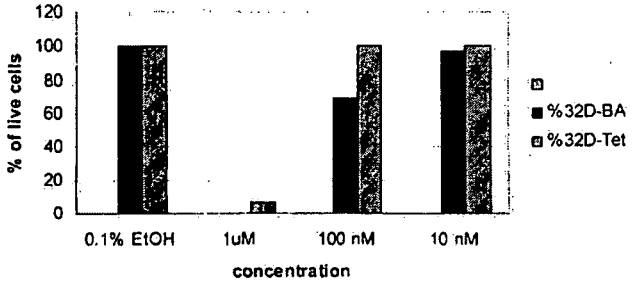


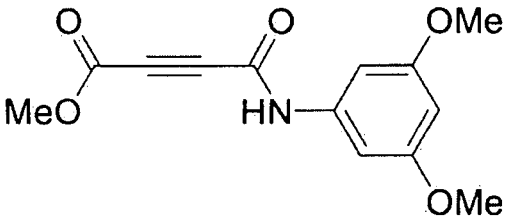
AC15 Cell Assay





AC16 Cell Assay





AC17 Cell Assay

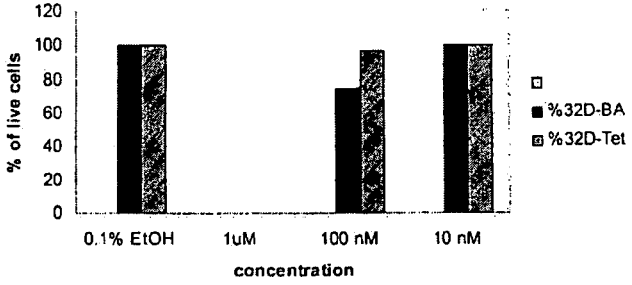
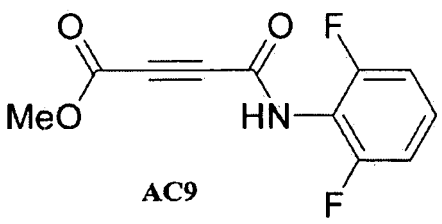
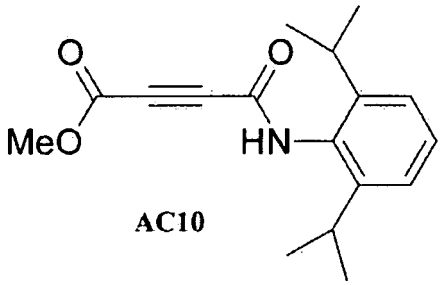


FIGURE 8

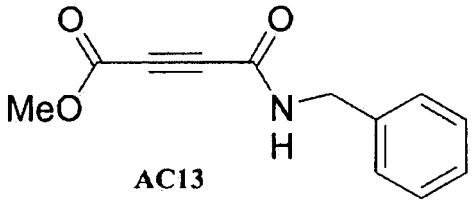
Library of Acetylenes



AC9

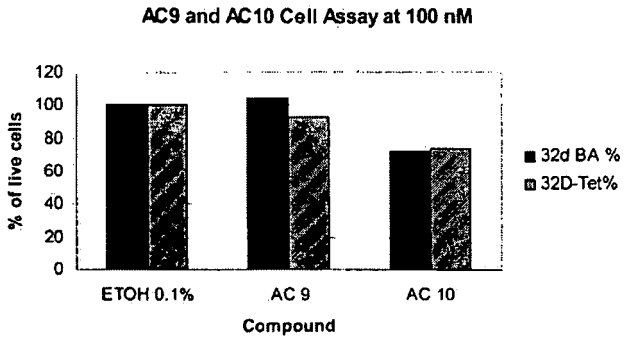


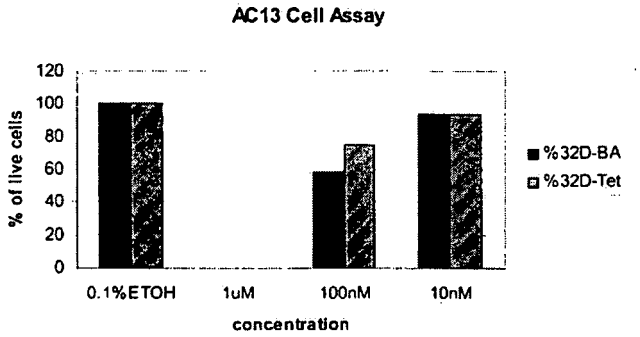
AC10



AC13

- **Electron withdrawing groups on the aromatic ring are detrimental to activity**
- **Steric hindrance at the *o*-position has little effect on activity**
- **Phenyl group on the amide can be replaced by a benzyl group**





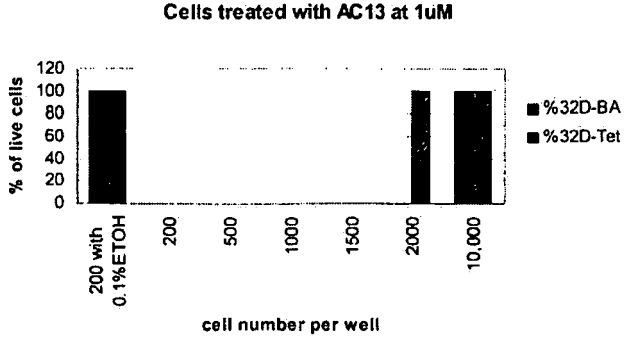
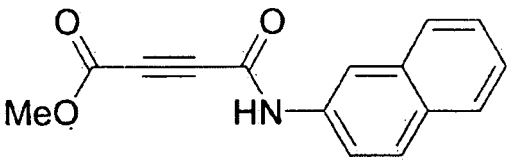
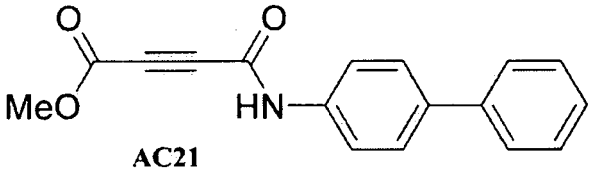


FIGURE 9

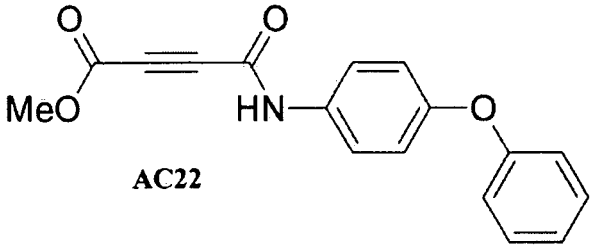
Library of Acetylenes



AC19

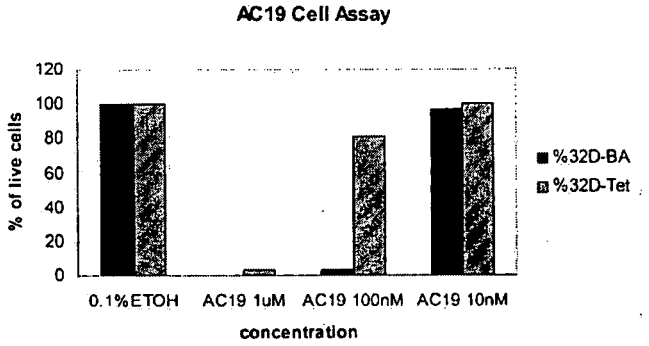


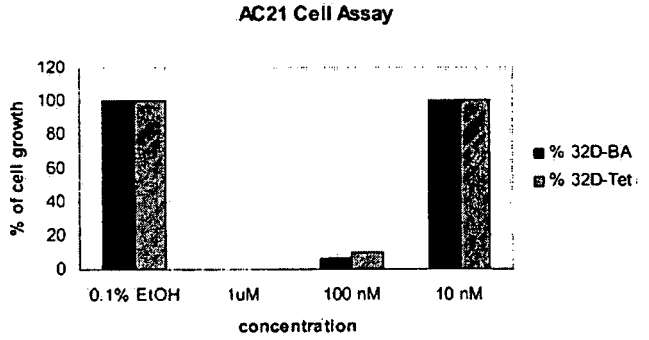
AC21



AC22

AC21 and AC22 have lost selectivity displayed by AC19 but not the activity





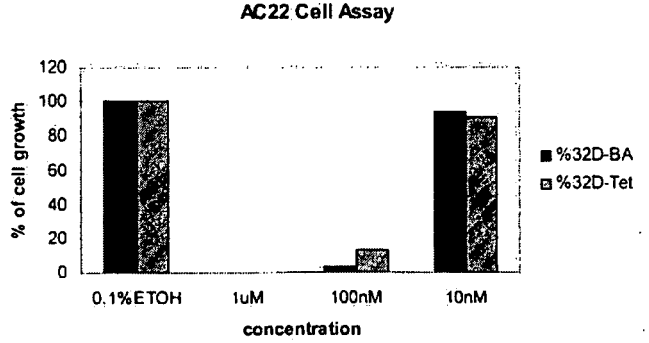
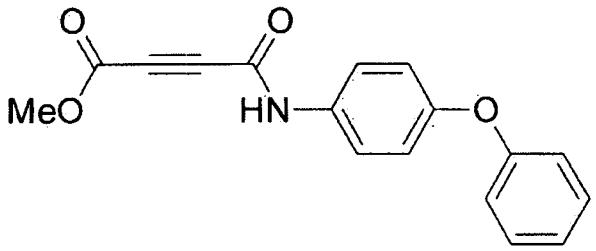


FIGURE 10

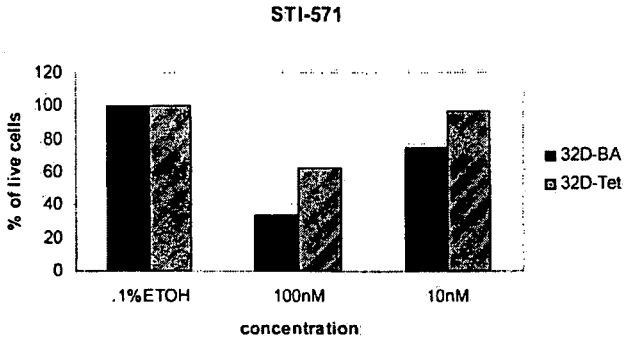
Some acetylenes exhibit synergism with STI-571

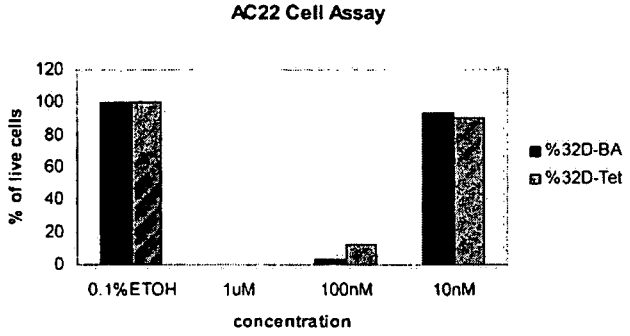
STI-571 (Gleevec®)



AC22

AC22 works in synergy with Gleevec®





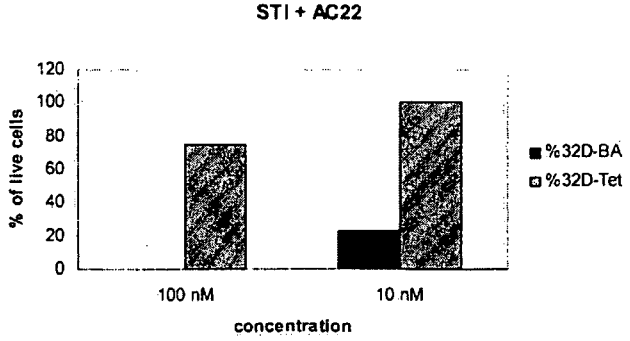
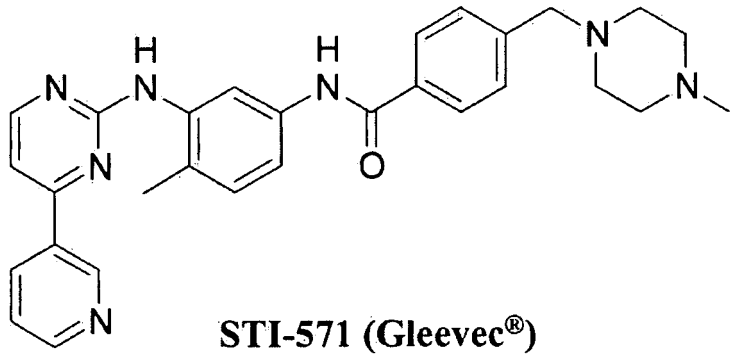
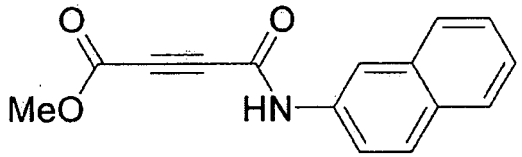


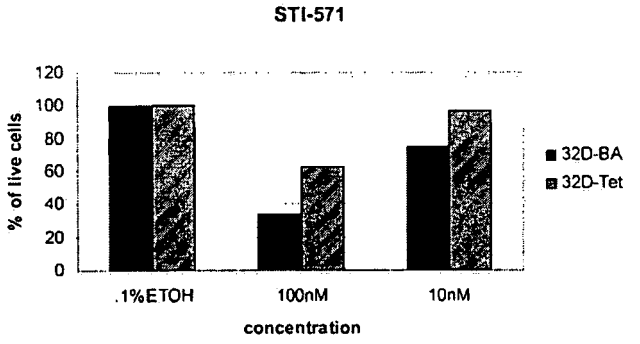
FIGURE 11

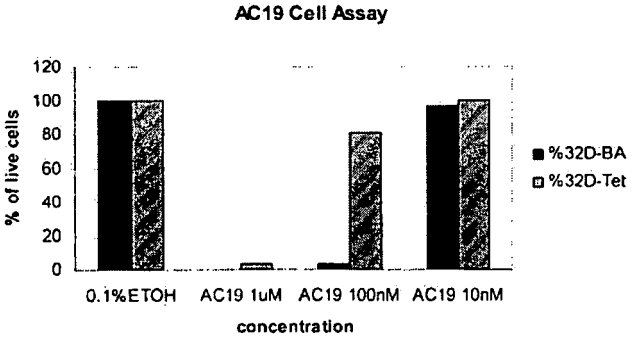


STI-571 (Gleevec®)



AC19





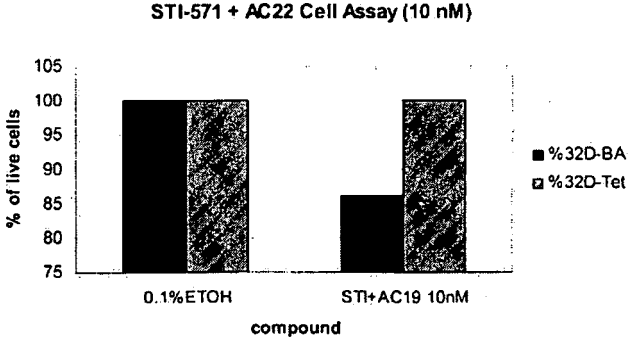


FIGURE 12

Testing of one furan from the second generation furan library

Recently, furans containing a H and a CH_3 were tested and proved to be active